III-03.01 Stationing

Stationing for projects should be according to MANUAL 90–1, FIELD DATA COLLECTION FOR ASPHALT AND CONCRETE PAVEMENT REHABILITATION PROJECTS.

III-03.02 Horizontal Alignments, Vertical Alignments, Roadway Width, Foreslopes, Backslopes, Drive slopes, Ditch Block slope, Clear Zones, Sight Distance, and Superelevation.

Generally, design two lane highways to eliminate barrier stripe wherever practicable. K factors for this condition can be found in Appendix I–06.03.3

Select the appropriate design guide in Section I-06 of this manual for new construction or reconstruction (RRR, RRRR, or PMRRR) for these elements of design.

III–03.02.1 Spiral Curve

Generally, Spirals are used on all curves greater than one degree on rural highways.

III-03.03 Driveways and Access Management

- See Section III–16 for more detail on access control
- See Standard Drawings D– 203–6, D–203–8, for design details for rural roadways and D–750–1 for urban roadways
- The throat width for urban drives should generally be as follows:
  - 10–15 feet for private residences
  - 20–30 feet for commercial
  - 40 feet for industrial

III-03.04 Interchanges

Interchanges should be designed according to "A POLICY."

III-03.05 Intersections

Type A & B intersections are shown on standard drawing D- 203-6. Select the appropriate type.

For any highway that results in a Dead End, it must have an escape ramp constructed or have the proper Traffic Control Devices placed to alert the motorist. (See Standard Drawing D-203-7.)

III–03.05.1 Turning Lanes

Whether or not turn lanes are needed will depend on the traffic operations analysis. This is conducted in the Planning Division or by the consultant. If needed, refer to the appropriate design guide in Section I-06 of this manual.

III– 03.05.2 Radial "T" Intersection Guide

Generally, this type intersection is used to eliminate tangent approaches at an intersection.

- Whether or not to use this intersection should be discussed in the Project Concept Report.
- Use for section line or county roads that intersect a state highway.
- Where two (2) state highways intersect, the traffic volumes will be reviewed to determine if the existing curve should be removed and replaced with a regular T or a radial T intersection.
- Where the Radial T is constructed the following criteria should be used**:**
    - The desirable superelevation on the curve should not exceed .04 ft./ft. with a maximum of .06 ft./ft.
    - The horizontal curve should not exceed a curvature of 2 degrees 30 minutes**.**
    - The maximum grade on the curve should not exceed 2%.
    - The maximum breakover between the adjoining road and the curve portion of the pavement should not exceed 5%.
    - To improve the visibility of the intersection for vehicles traveling on the low side of the curve, delineators should be placed along both sides of the adjoining road including the radiuses.
    - The adjoining road should have a 50 foot level space just prior to reaching the state highway.
    - The shoulder on the high side of the curve should also be flattened to improve visibility.